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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DIMITRI G. BETSES, SIDHARTH S. SAHNI,  
CHRISTOPHER L. COX, and TIMOTHY A. DUCHARME

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Appeal 2016-002889  
Application 13/090,946  
Technology Center 3600

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Before ALLEN R. MacDONALD, JOSEPH P. LENTIVECH, and  
DAVID J. CUTITTA II, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–7, 10–17, 19, and 20.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

### *Appellants' Invention*

This invention is directed to “a method for improved adherence to a medication therapy.” Spec. ¶ 1.

### *Exemplary Claim*

Exemplary claim 1 under appeal reads as follows.

1. A method for managing medication adherence of a patient, comprising the steps of:
  - receiving patient information comprising patient name, telephone number, and prescription information;
  - storing the patient information in one or more databases;
  - identifying a probability that the patient will not adhere to a medication therapy based on the patient information or combinations of patients and medications;
  - placing a first telephone call to the patient after the patient receives the filled prescription;
  - placing a second telephone call to the patient, using an interactive voice response system, prior to the day that the prescription is due for a refill; and placing a third telephone call to the patient in the event the prescription is past due for a refill.

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<sup>1</sup> Claims 8, 9, and 18 were canceled previously.

*Rejections*

The Examiner rejected claims 1–7, 10–17, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Akers et al. (US 6,112,182, Aug. 29, 2000), Denenberg et al. (US 6,464,142 B1, Oct. 15, 2002), and Hanina et al. (US 2011/0153361 A1, June 23, 2011). Final Act. 2–15.

The Examiner rejected claims 1–7, 10–17, 19, and 20 under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. Ans. 2–5.

*Appellants' Contentions<sup>2</sup>*

1. Appellants contend the Examiner erred in rejecting claims under 35 U.S.C. § 103(a) because the combination of Akers, Denenberg, and Hanina fails to teach placing a telephone call to a patient “prior to the day that the prescription is due for a refill,” as recited in claim 1. App. Br. 9–12; Reply Br. 5–8.

2. Appellants contend one of ordinary skill in the art would not be motivated to combine Denenberg with Akers and Hanina. App. Br. 12.

3. Appellants contend the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 because:

[T]he claim limitation “identifying a probability that the patient will not adhere to a medication therapy based on the patient information or combinations of patients and medications” is not an abstract idea at least because it is not a mere mathematical relationship and the claim limitation “placing a second telephone call to a the patient, using an interactive voice response system, prior to the day that the prescription is due for a refill” at least

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<sup>2</sup> Separate patentability, in compliance with 37 C.F.R. § 41.37(c)(iv), is not argued for claims 2–7, 10–17, 19, and 20. Except for our ultimate decision, these claims are not discussed further herein.

because it not merely organizing human activity.  
Appellants further submit that these limitations are  
significantly more than an abstract idea.

Reply. Br. 4.

*Issues on Appeal*

Did the Examiner err in rejecting claims 1–7, 10–17, 19, and 20 as  
being unpatentable under 35 U.S.C. § 103(a)?

Did the Examiner err in rejecting claims 1–7, 10–17, 19, and 20 for  
being directed to patent-ineligible subject matter under 35 U.S.C. § 101?

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’  
arguments (Appeal Brief and Reply Brief) that the Examiner has erred.  
We disagree with Appellants’ conclusions and concur with the conclusions  
reached by the Examiner. Except as noted below, we adopt as our own  
(1) the findings and reasons set forth by the Examiner in the action from  
which this appeal is taken and (2) the reasons set forth by the Examiner  
in the Examiner's Answer in response to Appellants’ Appeal Brief. We  
highlight the following additional points.

*Rejection of Claims Under 35 U.S.C. § 103(a)*

The Examiner finds Denenberg teaches “placing a second telephone  
call to the patient, using an interactive voice response system, prior to the  
day that the prescription is due for a refill,” as recited in claim 1. Final  
Act. 3–4; Ans. 5. The Examiner finds Denenberg’s system calls patients to  
remind them to pick up their prescriptions. Final Act. 3–4; Ans. 5–6; *see*

Denenberg col. 16, ll. 10–23. The Examiner further finds Denenberg teaches a predictive refill system that predictively refills a prescription before it is due for refill. Ans. 5–6; *see* Denenberg col. 18, ll. 45–53. Supported by Denenberg’s disclosure that predictive refills would benefit from Denenberg’s automated call system, we agree with the Examiner that one of ordinary skill in the art would appreciate that a predictively refilled prescription could be placed into Denenberg’s system resulting in a patient being called prior to the day the prescription is due for refill. Final Act. 3–4; Ans. 5–6; Denenberg col. 18, ll. 45–53.

Appellants argue (contention 1) the Examiner erred because “nowhere does Denenberg suggest or teach that the patient be called before the refill is fulfilled.” App. Br. 12. As explained by the Examiner, Appellants’ argument is not commensurate with the scope of the claims. Ans. 5. We agree. The claims recite placing a call “prior to the day that the prescription is due for a refill.” Claims App’x. The claims neither recite nor require that the call be placed prior to refilling the prescription. *See id.*

Appellants additionally argue the Examiner erred because “[a]n already-refilled prescription is obviously not due for a refill and is clearly not contemplated by the present claims.” Reply Br. 7. Appellants further argue the claims “do not recite language like ‘day the prescription *was originally* due for a refill,’ but rather the plain, present-tense language ‘day the prescription *is* due for a refill.’” (emphasis original) *Id.* These arguments are not persuasive. We find no condition in the claims that the day that the prescription is due for a refill is variable dependent upon preceding events. Accordingly we are not persuaded of Examiner error.

Regarding above contention 2, Appellants contend one of ordinary skill in the art would not be motivated to combine Denenberg with Akers and Hanina because, unlike their invention, “[t]he problems addressed by the systems and methods in Denenberg occur *after* a prescription has already been filled.” App. Br. 12.

We are not persuaded that the Examiner erred based on the problem addressed by Denenberg. “In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls ... [A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 419–20 (2007).

Moreover, the Examiner provides sufficient articulated reasoning with a rational underpinning to support the legal conclusion of obviousness. *See KSR* at 418. Specifically, the Examiner finds it would have been obvious to modify Akers’ system for managing a patient’s adherence to prescribed medication by placing calls to the patient utilizing an interactive voice response system, as taught by Denenberg. Final Act. 4; Ans. 7. The motivation proffered by the Examiner for combining the references is to provide a reminder to the patient that a prescription is due. Final Act. 4; Ans. 7. Appellants’ argument that the problems addressed by Denenberg occurs after a prescription has already been filled, does not reveal error in the Examiner’s articulated reasoning and proffered motivation. *See App. Br. 12*. Accordingly, we are not persuaded of Examiner error.

*Rejection of Claims Under 35 U.S.C. § 101*

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1300 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts.” *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. If the claims are not directed to a patent-ineligible concept, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1298, 1297). We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).



*Step 1*

Turning to the first part of the *Alice/Mayo* analysis, the Examiner concludes claim 1 is directed to “managing medication adherence of a patient,” which is considered to be an abstract idea inasmuch as such activity is considered both a mathematical relationship and a method of organizing human activity. Ans. 2–3. Specifically, the Examiner concludes the step of identifying a probability that the patient will not adhere to a medication therapy based on the patient information or combinations of patients and medications is a mathematical relationship. *Id.* And the Examiner concludes the steps of placing a first telephone call to the patient after the patient receives the filled prescription; placing a second telephone call to the patient, using an interactive voice response system, prior to the day that the prescription is due for a refill; and placing a third telephone call to the patient in the event the prescription is past due for a refill, are a method for organizing human activity. *Id.*

Claim 1 is a method comprising receiving and storing patient information, identifying a probability that the patient will not adhere to a medication therapy based on the patient information, and placing telephone calls to the patient based upon specific conditions. Claim App’x, 15. Our reviewing court has held a similar method, collecting and analyzing records of human activity to identify misuse and notifying a user when misuse has been identified, to be directed to an abstract idea. *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089 (Fed. Cir. 2016).

Appellants argue (contention 3) that identifying a probability that the patient will not adhere to a medication therapy based on the patient information, is not an abstract idea at least because it is not a *mere*

mathematical relationship. Reply Br. 4. Appellants further argue placing a second telephone call to the patient based on a specific event is not an abstract idea at least because it not *merely* organizing human activity.” *Id.*

We are not persuaded by these arguments.<sup>3</sup> Appellants’ arguments misstate the Examiner’s rejection as being founded on the claims reciting “merely ‘organizing human activity’” (Reply. Br. 4) and being “a mere mathematical relationship” (*Id.*). First, the Examiner did not base the rejection on Appellants’ argued “mere” or “merely” foundation. Rather, the Examiner relied on the two step *Alice/Mayo* analysis. The Court’s *Alice/Mayo* test has no such “mere” or “merely” requirement. Under, *Alice/Mayo*, a claim having more than the mere abstract idea is not sufficient by itself to render the claim statutory. Rather, *significantly* more is required.

Appellants essentially list elements of claim 1 without any persuasive explanation of how the elements either individually, or as an ordered combination, amount to an inventive concept that converts an abstract idea into patent-eligible subject matter. We therefore determine that the elements of claim 1, considered both individually and as an ordered combination, do not transform claim 1 into patent-eligible subject matter. Accordingly, we agree with the Examiner that claim 1 is directed to an abstract idea.

### *Step 2*

Turning to the second part of the *Alice/Mayo* analysis, Appellants argue identifying a probability that the patient will not adhere to a medication therapy based on the patient information is more than an abstract

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<sup>3</sup> Although Appellants’ arguments conflate the two steps of the *Alice/Mayo* test, we treat these arguments as being directed to step 1 of the test.

idea because probabilities of non-adherence may be compiled into a database, and the database may be queried with any of a number of factors, such as number of refills required for adherence, time since previous fill, or the specific age and condition of the patient, in order to determine the non-adherence probability. Reply Br. 4–5. Appellants further argue that placing the second telephone call is more than an abstract idea because it requires that the call be placed with an interactive voice response system. *Id.* at 5.

Regarding the use of a database and an interactive voice response system, Appellants have neither shown, nor provided sufficient evidence, that the claimed steps of receiving and storing patient information, identifying a probability that the patient will not adhere to a medication therapy based on the patient information, and placing telephone calls based upon specific conditions, are technically accomplished such that they are not routine, conventional functions of a database and an interactive voice response system. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (quoting *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2357 (2014)) (“Instead, the claimed sequence of steps comprises only ‘conventional steps, specified at a high level of generality,’ which is insufficient to supply an ‘inventive concept’”); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (“An abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea”); *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2358 (2014) (“the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention”; *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (quotation omitted) (“We have repeatedly held that such invocations of

computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea”); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (“Rather, the claims recite both a generic computer element—a processor—and a series of generic computer ‘components’ that merely restate their individual functions—i.e., organizing, mapping, identifying, defining, detecting, and modifying. That is to say, they merely describe the functions of the abstract idea itself, without particularity. This is simply not enough under step two”); *Intellectual Ventures*, 792 F.3d at 1370 (“[T]he ‘interactive interface’ simply describes a generic web server with attendant software, tasked with providing web pages to and communicating with the user’s computer”). Moreover, the integration of existing communication systems and devices to existing processes of facilitating a commercial relationship between a product provider and a recipient of those products, as claimed, appears to be a “‘well-understood, routine, conventional activity’ previously known to the industry.” *Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Mayo*, 132 S. Ct. at 1294). And “simply appending conventional steps specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable.” *Mayo*, 132 S. Ct. at 1300. None of the limitations of the claims, viewed “both individually and as an ordered combination,” amount to significantly more than the judicial exception, sufficiently to transform the nature of the claims into patent-eligible subject matter. *See Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297).

### CONCLUSION

The Examiner has not erred in rejecting claims 1–7, 10–17, 19, and 20 for being unpatentable under 35 U.S.C. § 103(a).

The Examiner has not erred in rejecting claims 1–7, 10–17, 19, and 20 for being directed to patent-ineligible subject matter under 35 U.S.C. § 101.

### DECISION

The Examiner’s rejection of claims 1–7, 10–17, 19, and 20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED